

Subject: Concern Regarding the Increasing Harvest of Juvenile Deep-Water Snappers (DWS) and a Proposal to Evaluate Management Measures

Dear Members of the Caribbean Fishery Management Council:

I would like to bring to the Council's attention a situation that I consider increasingly concerning regarding the harvest and commercialization of juvenile individuals within the Deep-Water Snappers Unit 1 - 2.

Changes in Harvest Patterns

In the past, the capture of small individuals of these species was considered primarily bycatch because they represented a relatively small proportion of the catch. In addition, fish buyers frequently paid very low prices for these individuals or simply refused to purchase them, which provided an economic incentive to discourage their retention.

The current situation appears to be very different.

Juvenile DWS 1-2 have progressively become a **direct target of the fishery**, driven by their increased commercial value. There is currently demand from fish markets, restaurants, and individual consumers, and the prices being paid make the capture of small individuals economically attractive.

According to information gathered from participants in the fishery, these products may reach approximately **\$6–\$7 per pound when sold to resellers or restaurants**, while, once processed into products such as cheeks or small fillets, their value may reach approximately **\$15 per pound** to the consumers.

This change in market value may be creating a significant economic incentive to retain individuals that previously had little or no commercial value.

I believe it is necessary to evaluate whether the current harvest pattern is unnecessarily increasing mortality among juvenile individuals and whether the existing management measures are sufficient to protect the population's size structure and future productivity.

Fishermen's Observations

In conversations with fishermen who participate directly in this fishery, it has been repeatedly reported that a considerable proportion of the catch consists of small individuals.

For example, some fishermen report that out of every five fish caught, approximately four are small, while only one, if fortunate, reaches one pound.

If this perception is confirmed through landing data, size sampling, and other scientific information, it could represent an important indication that fishing effort is increasingly concentrating on juvenile or smaller individuals.

There have also been reports of a significant decline in the availability of individuals large enough to produce marketable fillets. As a result, some fishermen have indicated that they have begun traveling to Culebra, staying there for several days, and conducting fishing operations in St. Thomas waters in order to obtain larger and more economically valuable catches.

Need to Evaluate Management Measures

Queen Snappers was a well-managed species until the requirements for obtaining a permit to harvest it were relaxed. We now need to carefully evaluate the options available to us to mitigate this situation.

In addition, the Fisheries Research Laboratory does not have sufficient resources, and this situation has effectively resulted in a voluntary reporting system because there is no effective monitoring system at the major of the main fishing ports.

In conversations with fishermen, the increase in **underreporting** has been described as alarming.

Given this change in the harvest pattern, I believe it would be prudent for the Council to evaluate, based on the best scientific information available, different alternatives to reduce mortality of juvenile individuals using Independent data for more credibility.

Potential measures that could be evaluated include:

1. **Establishing a minimum size limit**, if supported by biological data.

2. **Evaluating hook-size regulations** as a potential tool to reduce the capture of smaller individuals.
3. **Evaluating spatial management measures**, including the possibility of establishing restrictions at specific depths or in areas where significant concentrations of small individuals are documented.
4. **Specifically evaluating the area between approximately 80 and 100 fathoms**, if scientific data and fishermen's knowledge confirm that this area represents an important concentration area for juveniles.
5. **Evaluating controls on fishing effort**, including limited-entry mechanisms, if analysis demonstrates that the current number of participants or the level of fishing effort is contributing to the problem.
6. **Improving the landing-monitoring and reporting system**, particularly information regarding fish size, fishing area, fishing effort, and catch composition.
7. **Evaluating whether there is an alternative under which federal management could assume a broader and more consistent role in this fishery**, including an effective limited-entry system capable of controlling fishing effort from the jurisdictional boundary into waters closer to shore.

I am not suggesting that any one of these measures should be implemented immediately. My position is that, given the evident change in economic incentives and harvest patterns, we should begin evaluating these alternatives **before the situation develops into a larger management problem.**

A serious economic analysis of the fishery is also necessary. Understanding the changes in market value, demand, fishing profitability, and the economic incentives associated with retaining juvenile fish should be an important component of any management evaluation.

Fishermen's Initiative: Development of a CRP

As part of the actions I believe are necessary to properly document this situation, I have taken the initiative to organize a **working group to develop a CRP in collaboration with fishermen who participate in the DWS fishery.**

The purpose will be to combine fishermen's knowledge and observations with the scientific information available in order to document:

- changes in the size structure of the catch;
- the relative abundance of juvenile individuals;
- areas and depths where small individuals are concentrated;
- changes in the availability of larger fish;

- fishing effort;
- market behavior and product value; and
- any other factors that may help the Council properly evaluate the situation.

Our intention is to present more detailed information regarding this initiative at the next Council meeting, including the composition of the working group, the objectives of the CRP, the proposed methodology, and the information we expect to collect.

Final Considerations

I recognize that fisheries management must be based on the best scientific information available and that any modification to existing management measures must be carefully evaluated.

Precisely for that reason, I believe this is the appropriate time to begin studying the problem.

The fact that juvenile individuals have gone from being essentially low-value bycatch to becoming a commercially valuable product with significant market demand represents a **fundamental change in the economic incentives within the fishery.**

If the trend we are observing in the field is confirmed through scientific and fisheries data, I believe that waiting until the effects on the population structure become clearly evident could significantly limit our management options.

Therefore, I respectfully request that the Council consider this situation an issue worthy of evaluation and explore the possibility of using the information we can generate through the CRP, together with existing scientific and fisheries data, to determine whether additional management measures are necessary to protect the future productivity of the DWS complex.

There is little value in trying to manage a fishery if we do not protect its juveniles, because without juveniles, there is no future for the fishery.

Respectfully,

Nelson Crespo

Puerto Rico District Advisory Panel Chairman